# TRADE OCCUPATIONS AT PEARL HARBOR NAVAL SHIPYARD & INTERMEDIATE MAINTENANCE FACILITY (IMF)

### **COATINGS & COVERINGS**

**Fabric Worker:** Plan, design, lay out, construct and install containments using clear PVC sheeting, Herculite and other flexible materials. Other work includes reupholstering furniture and manufacturing tool bags, tank suits, banners, tents, leather articles and items of canvas, Naugahyde, Herculite and linen.

**Insulator:** Apply a variety of insulation materials on hulls, steam turbines, distillation plants, refrigeration plants, ventilation ducts and other submarine piping systems to prevent loss of heat or cold, to prevent condensation and reduce transfer of noise from the submarine to the sea.

**Painter-Blaster:** Apply paints, powder coating and coverings for functions, decorative or protective purposes aboard submarines, ships, and in shop areas.

**Plastic Fabricator:** Build, modify and repair plastic components by using techniques such as casting, fiberglass laminating, thermoforming, vacuum bag molding, compression molding or stray coating using a diverse selection of synthetic compounds. Milling of rubber compounds, valve repair, finish painting, waterjet cutter operation and plug wiring and molding.

**Shipwright:** Use transits and levels to establish working lines and reference points, check vessel alignment during docking evolutions, and construct precise docking blocks on which the vessel sits while in dry dock. Install, maintain and remove all staging associated with shipwork. Other work includes rough and finish woodworking, and making wooden mock-ups.

# **ELECTRICAL/ELECTRONIC TECHNOLOGY**

**Electrician:** Install and repair motor control circuits, motors and generators and portable electric equipment; manufacture and repair cables, connectors and panels used for temporary electrical service for industrial and Navy vessels. Typical work includes the installation and maintenance of shore power and shore electrical services in support of production and ship's habitability needs.

**Electronics Mechanic:** Install, troubleshoot, repair and test shipboard electronic equipment and systems. Systems include radar, sonar, fire control, communications and radio. Typical work also includes the manufacture, repair and test of various sonar transducers and arrays.

## **LIFTING & HANDLING**

**Rigger:** Uses lifting and handling equipment such as cranes, chain hoists, wire pennants, shackles, beam clamps, strong backs and dollies to safely remove, replace or reposition various pieces of heavy equipment and components on ships and submarines, in and around dry docks.

#### **MECHANICAL**

**Machinist:** Manufactures needed parts using machines such as lathes, milling machines, boring machines, drilling machines and computer controlled machines (CNC). Work involves disassembling, inspecting, machining, reassembling and testing components such as valves, compressors and pumps.

**Marine Machinery Mechanic:** Installs, removes, optically aligns, tests, overhauls and repairs ship's main propulsion machinery including steam turbines, internal combustion engines, reduction gears, propeller shafts, pumps, valves, auxiliary engines, nuclear reactor components, ordnance machinery and other shipboard components.

# **PIPING AND TEMPORARY SERVICES**

**Pipefitter:** Remove, repair, install the major propulsion, auxiliary and weapons systems aboard submarines. Manufacture, install, repair, maintain, and remove all dockside to shipyard temporary piping services.

#### **QUALITY ASSURANCE**

**Metals Inspector:** Perform non-destructive testing (NDT) of welds and various components of naval ships and submarines. This involves using visual, liquid penetrant, magnetic particle, eddy current, radiography, and ultrasonic-testing methods to inspect work accomplished by welders, shipfitters, pipefitters, and machinists. These inspection methods are also used on existing shipboard components to determine repair or replacement due to wear and fatigue.

#### **STRUCTURAL**

**Sheetmetal Mechanic:** Layout, manufacture, install and repair complex ventilation systems, furniture, lightweight bulkheads and doors on ships and submarines.

**Shipfitter:** Layout, manufacture, install, remove, and repair structural assemblies on ships and submarines, varying in size from less than 100 pounds to over several tons.

**Welding:** Join and cut all types of industrial and marine metals using complex welding and thermal cutting processes during the overhaul, repair and modernization of ships and submarines.